Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C.

In the Matter of	)	
Equal Access and Interconnection	)	**CC Docket No. 94-54**
Obligations Pertaining to	)	**RM-8012**
Commercial Mobile Radio Services	)	

COMMENTS OF DCR COMMUNICATIONS, INC. ON THE NOTICE OF PROPOSED RULE MAKING AND NOTICE OF INQUIRY

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Summary

DCR Communications, Inc., ("DCR") a minority and women-owned telecommunications company that is planning to bid for PCS licenses in the entrepreneur block auctions, supports the Commission's proposal to extend equal access to Commercial Mobile Radio Service providers. However, DCR urges the Commission to go further than it proposes and apply equal access to all communications carriers offering services to the public. Also, DCR also proposes that interconnection should be mandated among all communications carriers offering service to the public and that such interconnection should be on a basis equal among all carriers.

The future of telecommunications in the United States will feature many competing carriers offering many kinds of services. The differences between local telephone, long distance and mobile systems will fade. Technological, geographical and regulatory barriers will break down. Differences among carriers in the future will be based on service features, quality and price. Customers should have the right to choose any carrier offering any service and should not be forced to choose among bundled services.

In the future equal access and equal interconnection will become virtually indistinguishable. Both are critically necessary to the efficient functioning of the telecommunications system of the United States.

Equal access means more than the equal access applied in the landline telephone network. It means equal access both for services and for the signaling of intelligent networks. The databases of all carriers that contain the location, billing, service and carrier selection information of customers must be accessible to all other carriers. This is the only way that the increasing number of carriers and technologies will not result in a fragmented

telecommunications system of technology islands. Without equal access and without equal interconnection, the United States risks having the most Balkanized telecommunications system in the world. With equal access and equal interconnection, the public network of the United States will be a network of networks, providing access to all carriers that serve the public. Such a network will support vigorous competition, rapid technological change and improved service to the public.

Equal access probably will have to be phased in over a period of years. Technologies being planned for deployment for PCS in the United States do not currently support equal access and do not interface effectively with the current cellular networks. The Commission must mandate equal access now to ensure that the appropriate standards bodies begin work, and work diligently, to develop the necessary standards.

Interconnection should be an automatic right and obligation of all carriers offering service to the public. The states should be pre-empted from any regulation of interconnection among carriers. The Commission should consider creating a task force to establish national standards for interconnection, a uniform rate structure based on actual costs and a rational means of distributing the costs of interconnection.

Introduction

DCR Communications, Inc., supports the extension of equal access to all services and technologies that provide telephone service to the public. In addition, we urge the Commission to require that all carriers providing service to the public be required to offer equal interconnection to all other carriers providing service to the public.

The Future of Telecommunications

Before the end of this decade the number of carriers offering facilities-based telephone service to the public in any particular market in the United States will increase from the present three (local telephone plus two cellular) to nine or more (local telephone, two cellular, at least three PCS, ESMR, cable phone, competitive access provider(s)). In addition, there may be many more non-facilities based service providers as well.

We urge the Commission to consider what our communications system is likely to be in the near future, not what it has been in the past, or is at the present. The differences between traditional segments, local, mobile and long distance, will blur. Eventually these simply will be services. Physical, technological and regulatory barriers among these services will diminish, if not disappear altogether.

Long distance originally was differentiated by the difference in cost between a local and long distance call. Transmission costs were high and it cost much more for a carrier to deliver a long distance call than a local call. Thus a different method of charging customers for these calls was imposed. Different regulatory treatment developed for local and long distance service. States regulated local service. The FCC regulated interstate long distance.

The regulatory differences between local and long distance service were expanded with the break-up of AT&T. AT&T was split into companies offering local service and a company offering long distance. A massive body of law and regulation has grown during the past ten years and has magnified the differences.

Meanwhile, telephone technology has minimized the differences. Transmission is now very inexpensive. Distance is almost irrelevant to cost. There is very little real cost difference between the completion of a call across one metropolitan area and another call between metropolitan areas thousands of miles apart. This has been reflected to some extent in long distance rates, which have fallen precipitously since the break-up of AT&T. The intense competition among the long distance carriers no doubt is the chief cause of lower rates but long distance companies have been able to reduce their rates and maintain profitability because their underlying costs have declined.

The rapid improvement of long distance technology and dramatic reduction in cost also make the separation of local and long distance service technologically and financially obsolete. The separation today is largely a regulatory artifact. Within a few years that barrier will break down.

When we have nine or more carriers in a market, nearly all carriers will have their own version of long distance service, or will be aligned with a carrier that has long distance network facilities and capabilities. However, long distance service is likely to be much different in the future. With negligible transmission costs, services and rates are likely to be built on value-added features. New rate structures and new services will emerge. Distance-sensitive rates are likely to disappear. Incremental increases in rates are likely to be based on additional features used. Local calling areas may be quite large and may be customized to fit each customer rather than being based on geographic or regulatory

borders. It is quite conceivable that the local calling area for many services will be the entire nation.

The Future Role of Equal Access

What then is the role of equal access? Equal access will become critically important as a means of guaranteeing connectivity across this highly complex quilt of companies, technologies and services. It is critically important to ensure that competition continues to evolve in all segments. Eventually, the difference between equal access and interconnection largely will disappear.

Customers will demand that they be able to move easily from one area to another, from one technology to another, from one service to another and from one carrier to another. They will expect to be able to make and receive phone calls, and utilize their other communications services, automatically, anywhere.

Equal access and equal interconnection are the means by which the unity of the communications systems of the country is preserved, all the while facilitating robust competition, technological innovation, and improved service.

A Different Definition of Equal Access

Equal access also must be defined somewhat differently from the way it has been in landline telephony. Equal access in this new world is much more than just providing customers with a choice of long distance carriers. It is more than switching a voice call from the local network to a long distance network. Equal access must include access to all of the information necessary to complete the call of a customer, bill the proper party and support any other services that customer has selected. These require access to location and service profiles of the customers.

The Effect of the Geographic-Based Numbering System

Our telephone system today is dominated by a geographic-based numbering system. A telephone number is both a physical address and a billing address. In a landline network the telephone number provides all the information needed to complete the call and bill the proper party. This is not the case with wireless networks. Wireless networks have been limited by the use of geographic-based numbers. A cellular phone number, obtained from a local landline carrier, still contains a geographic address but it is the address of the local cellular switch, not the customer. The local cellular switch has to find the customer to complete the call. Today, completing the call to the customer when the customer is outside the local cellular service area is complicated and billing the proper party is even more difficult.

Completing a Call to a Roaming Cellular Customer

Cellular customers must employ call-forwarding techniques to receive calls when traveling outside their home areas. But the call still has to go to the home cellular switch. Thus, two long distance calls can be necessary to complete what should be a local call. For example, a person in Chicago calls a cellular customer in Washington, who happens to be in Chicago at that moment. The call goes from Chicago to the cellular switch in Washington. Assuming the cellular customer has activated a call forwarding system, or has automatic call forwarding, the Washington switch then routes the call back to Chicago. In today's cellular business, the caller pays for the call to Washington and the cellular customer pays for the call from Washington to Chicago plus the airtime. In fact it should be possible for that call to be completed directly to the cellular phone in Chicago, with no long distance charges and it should be possible to bill the caller for the cellular airtime.

Equal Access Makes Call Completion and Caller Pay Possible

It is possible to do this if equal access is available and if equal access is defined to include access to location and profile information. Equal access in the future must include not only the interconnection of the service portions of networks but also the signaling supporting network intelligence and information.

In an equal access environment, the caller's home system in Chicago would not send the call to Washington before it first determined the location of the called party. It would send a location and customer profile query to the cellular system in Washington over a signaling network link. The Washington cellular system would respond with a signaling message telling the Chicago carrier that the cellular customer is in Chicago and does not wish to pay airtime for incoming calls (or will pay for incoming calls). The call can then be completed directly to the roaming cellular customer and can be billed to the caller or to the called party.

Carriers can be protected against providing proprietary information to their competitors. The data fields accessible by all other carriers do not have to contain all information about the customer. They do have to include information as to location, choice of carrier, services to be utilized when roaming and billing choices. Whether the customer is identified by name should be a matter of choice by the individual customer.

The Future Numbering System

In the future, we will have a telephone numbering system that no longer contains geographic addresses. Numbers will be assigned to individuals, or to individual "smart cards." The number will have to work wherever the customer is. This means the customer will have to able to make and receive calls regardless of location and regardless of technology. A "smart card," or a similar method of identification such as a personal

number, should be able to work in a wireless phone, an airphone, a normal telephone and in a pay phone. These systems will require interconnected intelligent networks. Data providing location, billing and service information about customers will have to be easily transferable among all carriers. Things will become much more complicated as more carriers enter the telecommunications business. PCS will bring at least three more wireless carriers into existence in most markets within the next two to three years. ESMR networks will be built in most major markets. Cable television systems will offer telephone service. Competitive access providers will offer local service. Long distance companies will offer local service. Local telephone companies will offer long distance service. Without equal access and interconnection, it may become very difficult to complete a phone call.

Application of Equal Access and Interconnection to Services Other Than Voice

PCS services are expected to include data, paging, and short messaging in addition to voice. Why shouldn't data and paging networks be interconnected with PCS networks? Why shouldn't the new two-way wireless data networks interact with PCS systems so that a message originated on either system could terminate on the other? It would seem to be in the interest of public that this be possible.

Fragmentation of Telecommunications - the Advantage of the Incumbents

The proliferation of competition, technologies and services could fragment our telecommunications system. We could see the creation of "technology islands." Some carriers, particularly the local telephone companies, are better positioned to ride this out. They already serve nearly all of the customers. New carriers, particularly the entrepreneurial PCS carriers, could be at a severe competitive disadvantage against PCS carriers owned by the telephone companies if they are not able to achieve equal access and equal interconnection.

Equal Access is an Efficient and Cost-Effective Solution

The answer is to solve the problem now before it becomes unmanageable. And the solution is the phased-in uniform and standardized requirement of equal access and equal interconnection among all carriers offering service to the public. This solution is also the most efficient. All communications systems can be designed to provide standardized interfaces with all others. In fact, much of technology to do this already exists. Because the costs can be spread across the entire telecommunications infrastructure, the cost to individual carriers will be relatively insignificant. In fact, today's costs of implementing equal access may be highly exaggerated by those who oppose it. Our information from manufacturers indicates that equal access for PCS may not add more than approximately $50,000 to the cost of a $5 million switch, and it could be less if uniformly required.

Problems with Immediate Implementation of Equal Access

There are other problems with immediate implementation of equal access. GSM, the European digital cellular standard, a version of which is expected to be widely deployed in PCS systems in the United States, does not support equal access. The GSM MAP does not have a number field large enough to support 10XXX dialing. For GSM smart cards to support equal access in the U.S. but also provide service in systems elsewhere in the world (and GSM has been licensed widely outside the Western Hemisphere), changes will be necessary in the GSM standards. No work has been done on this in the standards bodies. The IS-41 protocol used by U.S. cellular companies does not support all of the features necessary and IS-41 is not uniformly deployed. In addition, interfaces between IS-41 and the GSM MAP must be developed. Development is not likely to start unless and until the FCC mandates equal access

The FCC Should Pre-Empt State Regulation of Interconnection

Interconnection is subject to state regulation. The FCC has adopted a licensing mechanism for PCS that, in many cases, creates PCS service areas extending across several states. A PCS carrier faces the prospect of operating one service area with different interconnection rates and rules. State regulation of interconnection serves no useful purpose and may result in protectionist actions on behalf of local telephone companies. The Commission should pre-empt all state regulation of interconnection.

A Structure for Standards and Rates Must be Established

The Commission asked for comments on whether interconnection should be accomplished by contract or tariff. If a uniform requirement of interconnection is adopted, all carriers must make interconnection to all other carriers. Contract negotiations then would seem impractical. Tariffs also may be anachronistic. There should be a rate structure applying to various kinds of traffic and applying equally to all carriers. These rates should be no higher than absolutely necessary to cover costs. It may be necessary for a new system to be established. The Commission should consider establishing a task force, representative of all industry elements, that recommends a structure to the Commission. Relief from this structure should only be possible when a carrier can prove hardship and can prove that its costs exceed the structure.

Interim Actions

The deployment of equal access may require some interim actions. Third party points of interconnection for services and signaling may be necessary. This could be at facilities of the local telephone company, although there are obvious problems with this approach. The Commission may wish to consider permitting the use of third party points of interconnection during a set period of time to permit all carriers to implement equal

access and equal interconnection before their own network switches and software can be upgraded in a reasonable fashion. A period of up to five years may be reasonable.

Conclusion

There is a great deal of misunderstanding about equal access and interconnection. They are considered burdens by many carriers. Even the Commission raises questions about their need and cost. However, there is no other method that is likely to support robust competition in U.S. telecommunications. And failure to provide for a uniform system will result in chaos and will retard the development of the full capabilities of modern telecommunications technology.

The public network of the United States should be a network of networks. Every legitimate carrier offering service to the public should be part of this network and should have the same rights of access as every other carrier. There should be no need for bona fide requests and all the other administrative baggage currently bogging down the process. Every customer should have a choice of the carriers providing any desired service.

A customer should be able to choose a local service provider, a different long distance company, a different message service, a different paging service, a different information service provider, or more than one of any of these or any other communications service that develops. And while carriers may offer more than one, or even all of these services, customers should not be forced into choosing bundled services. If one device can support all of these services it should be able to support access to the providers of all of these services. A service provider's ability to compete should depend on the quality and value of the service it provides, not whether it has access to the customer.

When fully implemented the concept advanced here will result in a highly competitive and highly progressive telecommunications system. It will be adaptable to new services and new service providers. It will meet the changing needs of the public. But most

important it will provide the public with the best possible service, at the lowest cost, with the least amount of complexity.